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ABSTRACT

Several factors encouraged the University of Wyoming (UW) Libraries to reexamine traditional interlibrary loan services, including shrinking budgets, rises in journal subscription rates, increasing demands for interlibrary loan services, and lower user tolerance for delays in filling orders. In response the libraries decided to examine the journal article services provided by commercial document delivery vendors and compare them with traditional interlibrary loan services. Online order systems were not used, nor was full-text delivery from online vendors. In all, 636 requests were made during the three-month study period. Requests were sent to 14 vendors, including those who could supply articles from a wide range of disciplines and those with a specialized focus. Some vendors had in-house collections and others had access to major research library holdings. Of the 636 requests, 140 went to libraries. Requests were sent by OCLC (Online Computer Library Center), facsimile transmission (fax), telephone, and Federal Express; articles were delivered by surface mail, fax, and Federal Express. The results of the project were mixed. Commercial suppliers were slightly less successful, on average, than libraries in order fulfillment. While some vendors were both inexpensive and slow, libraries and vendors averaged about the same delivery speed. Eliminating requests that were supplied free of charge, the average cost per request was $12.11. The most frequent problems were extremely long response times or not sending a fax when requested. Fax quality was not a major complaint among patrons. Only one commercial supplier stood out in terms of fulfillment success and delivery time. The examination of commercial suppliers did not provide a clear alternative for filling requests for journal articles, but it did make librarians more aware of the available options and the need to balance time and expense in document delivery. Vendor performance is described in the narrative report and in appended tables that show the overall success rate; indications of average delivery times for fax delivery, mail delivery, and overall average; average costs broken down into fax costs, mail costs, and overall average costs; and the proportion of problems experienced in relation to the total number of requests. (KRN)

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DOCUMENT DELIVERY: AN EXAMINATION OF COMMERCIAL SUPPLIERS AS AN ALTERNATIVE TO TRADITIONAL INTERLIBRARY LOAN AT THE UNIVERSITY OF WYOMING LIBRARIES

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Introduction

By the early 1990's, several factors had come together to press the University of Wyoming (UW) Libraries into a re-examination of traditional interlibrary loan service. First, following significant budget increases in the early 1980's, funding leveled off and then began to shrink. Second, we were experiencing tremendous rises in journal subscription rates and, in fact, had already undertaken two journal cancellation projects in three years. Third, partly because of cancellations, partly because of the proliferation of journals, we had increasing demands for material. Last, perhaps because patrons were experiencing the benefits of new technology in other areas, the length of time required to supply material through traditional interlibrary loan was no longer satisfactory.

In response to these factors, among others, the UW Libraries adopted a "New Directions" mission in 1990. Included is the idea that the Libraries should make use of developing technology and services to provide quick delivery of some published materials, particularly journal articles. Traditional interlibrary borrowing success is limited by the length of time needed to complete a transaction. In order to reduce delivery time to a week or less, we proposed to examine the services provided by commercial document delivery vendors to supply some or all journal articles. Before designing a new campus service for obtaining such material, we wanted to use these vendors on an experimental basis.

Possibilities like this have been partially explored over the last decade. As long ago as the early 1980's, the relationship between commercial suppliers and library document delivery was becoming a subject of interest. A study, sponsored by the Council on Library Resources and conducted by Information Systems Consultants, Inc. (1983), assessed document delivery in its then current form in the United States and predicted its likely future. One of the conclusions reached, summarized by Halsey, (1988,23) was that "even though there was virtually no information available about the performance of commercial document services, it was the opinion of the consultants that a major collective study is not the key to the problem because there is no evidence that the library and document services communities at large are seriously concerned about the performance of document delivery."

Since that time, occasional intensive studies have been undertaken to compare the performance of commercial suppliers with traditional interlibrary borrowing. An early investigation was undertaken by Currie (1985) at Cornell University. Costs and delivery time were tracked for 124 journal requests sent to two categories of document delivery vendors as well as to libraries. Evidence indicated that traditional channels provided more articles as quickly and at less cost than commercial suppliers.

DOCUMENT DELIVERY BY COMMERCIAL SUPPLIERS

A study was conducted at the University of Virginia and evaluated by Hurd and Molyneux (1986). Requests for 212 articles were sent to standard interlibrary loan sources and one commercial supplier, UMI. Again, costs and delivery time were compared. If a request took more than 15 days, library staff intervened. In this case, articles arrived faster from UMI than from other libraries. However, the vendor was more expensive and had more inconsistencies than libraries.

Halsey (1988) conducted a study in which 124 requests were sent to both UMI and conventional sources. She concluded that the commercial supplier delivered a good product, but had higher costs and was no faster than interlibrary loan. Miller and Tegler (1988) reported on a slightly different comparison. Each of 186 requests previously obtained through interlibrary loan were identified and sent to each of two categories of commercial vendors, "database-specific suppliers" and "general suppliers." Specific companies were not named though it appears that eleven were chosen. Costs, delivery time and success rate were examined with the conclusion that, again, articles from commercial suppliers did not arrive faster but did have higher direct costs.

We wondered if the situation had changed over the last several years and also we wanted to know how specific companies perform and price their services. We had come to the conclusion that a service did not have to be more inexpensive than traditional interlibrary loan to be valuable; we could afford the purchase of many articles from a given journal if it meant we saved the $700 subscription price. So we implemented a pilot project with a goal "to examine alternatives to interlibrary loan for quicker journal article delivery."

Throughout the entire project traditional interlibrary borrowing avenues were used for requests involving other material, like papers from proceedings. The Interlibrary Loan staff was instructed to experiment freely with the vehicle used to make a request (OCLC, fax, or telephone) as well as how they requested delivery (surface mail, fax, or, during the second phase, Federal Express). Online ordering systems, such as DialOrder, were not used. A decision was also made not to include full-text delivery from online vendors.

Because we had concerns about the impact of this experiment on workflow in the absence of a departmental manager, the project was organized into two phases. The first and shorter phase involved only a limited number of requests in order to keep normal work interruption to a minimum. Since staff members were successfully able to incorporate these new suppliers, the second phase was expanded to include all journal requests. This pilot project was not announced to the campus since it was not clear if commercial suppliers would be an improvement over normal business.

DOCUMENT DELIVERY BY COMMERCIAL SUPPLIERS

Phase 1

The first part of the pilot project ran from August 19 through October 4, 1991. During this time, a maximum of six journal requests, from any subject areas, were selected each day to divide between two commercial vendors. Originally, University Microfilms International Article Clearinghouse (UMI) and UnCover2[1] were selected since both vendors cover a broad range of disciplines. However, UnCover2 was not yet available so the articles were divided between UMI and the Institute for Scientific Information's Genuine Article (ISI). Any requests unavailable from either vendor were sent to libraries in the traditional manner, requesting speedy handling and/or fax delivery. Since library requests were tracked during the project, they have been included in the report. In a seven week period 175 requests were sent, an average of 5 per day.

A log was maintained and for each request. Staff noted: date of request; request number; how request was sent (OCLC, fax, telephone); which supplier was selected; how article was to be delivered (mail or fax); date article was received; number of days from request to receipt; how article actually arrived (mail or fax); charges; brief journal title; postmark date, in cases of mail delivery. If a request had to be retried, it was recorded.

Phase 2

Phase 2 of the project ran from October 21 through November 22, 1992. During a five week span, all requests that were clearly for journal articles were sent to a variety of commercial suppliers. Only when the request was not filled and there was no other obvious vendor did a request go to a library via the traditional route. When using libraries this time, there was a mix of rush and routine requests.

To get experience with a wider variety of vendors, 14 companies were chosen ranging from UMI, which could supply articles from many disciplines, to I-Med, which specializes in medical requests. Many of these vendors do not restrict their services to journal articles but provide access to all kinds of published literature. A total of 461 requests were made.

Initially, companies with in-house collections were selected because we assumed that delivery could be quicker for them than for those who use outside collections.

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[1] Uncover2 is a relatively new service provided by CARL (Colorado Alliance of Research Libraries) Systems, Inc. The basic UnCover database displays the table of contents of individual journal issues. UnCover2, the document delivery service, supplies those articles from the Alliance member collections.

Accordingly, we chose vendors like Chemical Abstracts Service Document Delivery Service, Engineering Societies Library, Institute For Scientific Information' Genuine Article, and University Microfilms International. In-house collections can be, though are not always, strong in recent titles and relatively weak in retrospective holdings. So another group of suppliers was selected, those having access to major research library collections. They included Data-Search, Dynamic Information Corp., GeoRef, I-Med, Information On Demand, Information Store, and Medical Data Exchange. We tried to find a mix of companies dealing in all or many disciplines as well as those concentrating in one subject area. We were curious to see how well UnCover2 could fill our needs, particularly because it is a new vendor and claims a very quick normal response. Even though the University of Wyoming Libraries have a strong connection with UnCover2 because our collections, along with other CARL members' collections, are used to supply articles for the service, we had no special stake in how well it stacked up against other vendors.

This time, we recorded more information. Each request was recorded, showing: date request was sent; request number; patron name; if the item was available from UnCover2 (although a request was not necessarily made); which campus department the patron was connected with; whether the patron was faculty, staff, graduate student or undergraduate; how the request was made (OCLC, fax, telephone, Federal Express); which supplier was selected; how article was to be delivered (surface mail, fax, Federal Express); date article was received; number of days lapsed from request to receipt; how article was received (mail, fax, Federal Express); charges; number of pages received; year of publication; abbreviated journal title; postmark date, if appropriate; and retried requests where applicable.

Problems were noted as they came up and generally fell into categories, some relating to suppliers and others to the library. We logged a problem if the article received was incomplete or reproduction quality was poor; if we requested delivery via one method but did not receive that way, for example, we requested delivery by fax and received by surface mail; if the patron was not satisfied with fax quality; if the article took what we thought was an extraordinarily long time to arrive (20 days or longer); if one vendor supplied an article twice or did not update OCLC to indicate an article was on the way with the result that it falsely appeared as though the article was not being supplied and we went on to another source; or if we never received a response of any kind from the vendor. Once made, staff members did not interfere with any requests so that delivery would run a normal course within a company's workflow.

DOCUMENT DELIVERY BY COMMERCIAL SUPPLIERS

Summary

Results from our experiences with individual commercial suppliers are summarized below. For detailed information on each vendor's performance, the reader is referred to Appendix A. Comparisons of vendor performance are provided in a series of tables. Table 1 shows overall success rate. Table 2 gives indications of average delivery times for fax delivery, mail delivery and overall average. Average costs are likewise broken down into fax costs, mail costs, and overall average costs in Table 3. Table 4 shows the proportion of problems experienced in relation to the total number of requests. Only specific types of problems were recorded and are outlined in Appendix A.

Chemical Abstracts Service Document Delivery Service (CAS)

We sent a moderate number of requests to CAS (20). CAS was 85% successful. Interlibrary Loan has a catalog of titles available from CAS so a fairly high success rate makes sense. CAS delivered faster (8.1 days) than like vendors and was second only to UnCover2 (which is uniquely based on fax delivery only). However, 8.1 days is still slower than hoped. Costs are relatively high, ranging from $18.60 for mail to $21.00 for fax/Federal Express delivery. Problem rate was not significant.

Data-Search

Only a small number of requests (9) went to Data-Search. We discovered this vendor part way through the test period and had to guess at what types of requests to send to them. We selected this company in hopes it would fill requests for older material. Perhaps because they use outside collections, delivery time slowed considerably (36 days). Data-Search was the slowest vendor used. We were unable to get anything delivered by fax. Costs were high, averaging $19.06. Problems centered around slow response.

Dynamic Information Corp. (Dynamic)

Only one request went to Dynamic Information so conclusions are difficult to reach. They were able to supply but delivery was in 19 days. Cost was $12.50 and there were no problems. This is a vendor chosen for ability to search out older material in local libraries.

DOCUMENT DELIVERY BY COMMERCIAL SUPPLIERS

Engineering Societies Library (EngSoc)

Engineering Societies Library was chosen for potential subject strength - it should be quicker for staff to choose a vendor with a clear subject orientation. Only a small number of requests (4) were sent. Only 1 of the requests was filled, not a high success rate. Delivery time was 19 days. We did not receive a bill from this vendor but should have been charged an unknown fee. We had no indication of titles held by the company.

GeoRef Document Delivery Service (GeoRef)

We selected GeoRef for subject strength and for the potential of filling requests for article citations found on the CD-ROM index. Only six requests were submitted. They were able to fill all requests. They have a minimal collection and rely on local collections to fill requests. Delivery time averaged 16.3 days, probably not acceptable. They did not supply the fax we requested. Cost averaged $14.46. Two articles took 20+ days to get. We had no list of titles held by GeoRef.

I-Med Information Services (I-Med)

We sent a moderate number of requests (12) to I-Med and received all but one. We could not get the fax we wanted. Delivery time was fairly good (8.5 days) with six of those days tied up in transit. Average cost was $8.59 and problems were few.

Information On Demand, Inc. (IOD)

This vendor was selected because they use collections other than their own. We sent out 10 requests and all but one were filled. They were one of the few vendors who consistently faxed when requested. Delivery took a very long time (29.6 days) and they were the most expensive vendor used with an average of $27.96. In one case they sent a nine page article to us which cost $50.15 and took 15 days to receive by fax.

Information Store, Inc. (Infostore)

Information Store is another vendor chosen to help fill older requests. A moderate number of requests (19) were sent out and all but two were filled. Their delivery time

was not good, articles taking an average of 30.8 days to arrive. Costs were high with an average of $25.53 per article. Nine requests took 20 days or longer to receive. We did have the convenience of OCLC to make requests. We received several communications from the vendor which assigned us a company representative to deal with questions and problems. We may have had assigned contacts with other vendors but if so, we were not aware of it.

Institute For Scientific Information's Genuine Article (ISI)

ISI was one of the major suppliers and was used throughout the entire project. They were selected because of their scientific specialty. We sent 126 requests to them and they were able to fill 93. Use the figure provided in Appendix A on availability from UnCover2 with caution because the information was not kept during the first phase of the project. They showed a fairly good delivery speed averaging 10.3 days. Cost averaged $13.79. Problems included some difficulty in getting fax delivery and several articles took a long time to receive which skews the average delivery time somewhat. We had a list of publications held by ISI which no doubt helped the success rate but we thought that rate might be even better because the catalog indicated their holdings.

Libraries

Libraries had a large test size, were used randomly during the first phase and as an second choice throughout the project. The results in this category must be interpreted carefully. Long established agreements among and experience with libraries make comparisons difficult. Interlibrary loan staff who are expert at selecting a library based on location and costs were in unfamiliar territory when choosing commercial vendors. We made 140 requests and successfully filled 125 during the project's life. Some were retried after the project ended so appear here as unfilled.

Delivery time averaged 9.3 days, with 9.9 days by mail and 4.1 days by fax. Anything sent through an existing courier system was counted as mail and therefore lowered the average delivery time. We consistently asked for rush handling in these requests and as a result had faster delivery times than are usual. Such speed could not be expected to be maintained over time without new reciprocal agreements. Costs averaged $6.07, $5.81 for mail and $9.50 for fax. Since many libraries supplied free articles and in order to more accurately compare libraries with commercial vendors, costs were calculated only on transactions which carried charges. We had 16 articles which arrived by mail when we had requested fax. One article was incomplete. Three

articles were received by fax when we had requested delivery by mail, nine took 20 days or longer to arrive, one library supplied an article twice or did not update OCLC and in one case we did not receive a response at all.

Medical Data Exchange (Medical)

This vendor was chosen because of its subject specialty. A small number of requests were sent (9) and only one request was unfilled. Delivery required an average of 24 days, about 32 days by mail and 10 days for fax. Average cost was $18.49, $16.68 for mail requests and $21.50 for fax. One article came by mail rather than the requested fax and three took 20 days or longer to arrive. I-Med articles arrived with a Dynamic Information letterhead.

Michigan Information Transfer Source (MITS)

Several research libraries have developed full service fee-based operations. This vendor was the only one of that kind involved in this study. We sent ten requests to MITS and they were able to supply five. They responded with mail delivery fairly quickly averaging 8.8 days and costs averaged $11.40. There were no problems.

Sport Information Resource Centre (SIRC)

Only two requests went to SIRC and that came about because of a special circumstance in which a patron's online database search yielded two citations for articles and since he knew SIRC could supply, we used them. Success, of course, was 100%. The articles took 18 days to receive at a cost of $10.00 per article.

UnCover2

The basis for Uncover2 is CARL's UnCover database which displays tables of contents from individual journal issues. A request is made online via CARL PAC terminals. CARL Systems, Inc. employees, located at some members' libraries, retrieve the article from the shelf and scan it electronically. The article is then transmitted to the CARL offices where it is sent on to the customer via fax and, in some cases, is also stored electronically for quicker delivery on subsequent requests. If the article is unavailable for some reason from library collections (at bindery, missing, etc.), the request is channelled to the British Library Document Supply

Centre. UnCover2 supplies by fax only and responds within 24 hours, with selected articles available in one hour. For institutions, it operates with deposit accounts.

A large number of requests (105) were sent to UnCover2 in the second phase. Nearly all (100) were supplied. We expected a high success rate because we knew if the specific item was available before ordering, something unique among vendors. Fax delivery brought delivery time down to 1.8 days. This result was significant because only UnCover2 allowed us to deliver articles to our patrons in days rather than weeks. It is true that other vendors can supply quickly but such speed carries with it the concept of being an extra service at an extra charge. Average cost was $9.56 with the added feature that staff knew the exact price of the article before placing an order. A unique problem was with deliveries from Great Britain. As articles printed on our fax machine, pages were offset and cut off mid-page. This required several phone calls and new transmissions to get a useable copy. It is assumed the problem was part of a new service and that it has been worked out. UnCover2, unfortunately, does not offer a mail delivery option for situations where print quality is more important than speed.

Interlibrary Loan staff seemed to like using UnCover2. Ordering was easy, with some repetitive steps which could be automated. They were assured that the specific item was available (not just the general journal title) **before** ordering and they knew quickly whether or not the article would be supplied. An important feature was having a firm price before ordering.

University Microfilms International Article Clearinghouse (UMI)

UMI had a large number of requests because they were used throughout the project and we expected to depend heavily on them. Use the number of articles available in UnCover2 carefully because that information was recorded only in the second phase. Success was good, 82.8% of requests were filled. A catalog of holdings was available from UMI which contributed to the success rate. Delivery time was good at 9.3 days. Average cost was $10.00. It should be noted that we get a discounted price through the Bibliographic Center For Research (BCR). We had difficulty getting consistent fax delivery.

Results

As expected, the pilot project provided a mix of results with great variety in vendor performance. Overall, commercial suppliers were slightly less successful (84.1%) than library suppliers (89.3%) however OCLC allows a request to pass through multiple

libraries before returning as unfilled so that figure might in reality by lower. Some vendors were extremely expensive and slow. A few rose to the top in terms of a balance between quick delivery and reasonable cost. Clearly, new vendors should be examined and tested on individual merit before being heavily used.

We were able to get experience with both mail and fax delivery but little with Federal Express. From several vendors, fax receipt was very unpredictable. We requested that an article be faxed to us but had a number of instances in which the article arrived by mail. Rush handling of requests (same as fax delivery with most vendors) seems very unreliable, however we might investigate ways to better flag our requests for transmission. UnCover2, of course, was an exception because they only offer fax.

Delivery times varied also. Libraries and vendors averaged about the same delivery speed although UnCover2's fax delivery causes the vendor average to be slightly faster than it really is. Consistently reliable delivery time was lacking. Last year's traditional delivery time on all requests averaged 18 days. The vendors came through with a very respectable 9.7 days. We originally hoped about three days was possible but, of course, that only happens with non-mail delivery, a potentially expensive option.

Costs, of course, were higher than we are accustomed to but it was expected since we were paying copyright fees in addition to transaction charges. Average cost however, was close to what was anticipated ($9.87). The more realistic figure for budgeting purposes is $12.11, calculated by eliminating all requests that were supplied free of charge. If more expensive vendors like Information Store, Information On Demand, and Data-Search were eliminated, average costs would certainly go down.

Problems were varied with most common problems being an extremely long response time or not sending by fax when asked. Several times vendors supplied the article twice or did not update OCLC when supplying. Data-Search averaged a 36 day response. Some requests never received a response. We eventually had to cancel those requests over nine weeks after the project's completion. A good half of our waiting time was spent with the article enroute. When sent by mail, articles averaged five days from the postmark date to receipt. Inconsistency in service from these companies would require monitoring requests even after sending them into whatever system we might establish.

Fax quality did not prove to be a major complaint among patrons. A note was sent with a faxed article explaining the process to the patron and encouraging a response if the fax was not satisfactory. We heard from only two patrons. Even so, fax, with its inherent problems, should be carefully considered when setting up a new service. It

probably will require that the patron make a speed vs. quality decision when originating a request.

The only commercial supplier that stood out was UnCover2. It had a very high success rate with the best delivery time. Average costs were better than most and problems were minimal. Its major flaw is the inability to deliver by mail or other means in situations where fax is not adequate.

While not a part of this experiment, Faxon XPress (a delivery service due out in September, 1992) and electronic full-text delivery should be investigated fairly soon. Since UnCover2 was so convenient to use and since Faxon is patterned after that service, it seems wise to try Faxon. The fact that they offer a choice of delivery (fax, mail) is very attractive. It will, however, be more expensive than UnCover2. Full-text is, of course, the quickest delivery available and graphics quality is reportedly making progress.

Recommendations

In the face of recent serials cancellations with more coming in the near future, it seems certain that we must make every effort to provide our patrons with journal articles as quickly as possible. It is clear, from a collection development point of view, that we must obtain these articles within a few days, essentially as quickly as we can afford to. For both political and common sense reasons, we should certainly provide quick access for anything we have canceled. Other journals would logically fall into line because there is some difficulty in trying to have too many workflows within the department. Also, once we prove that we can deliver in a short time, we will have set up that expectation among patrons and should provide service at that level.

The intent of this recommendation is not to set up the details of how we go about meeting this goal. Rather it is to suggest that we use the best of what was learned during the project to provide the backbone of a new service. Almost anything we do, aside from maintaining the status quo, will cost more than what we presently spend. Some additional funds have been provided in the collection development budget. Currently, those funds are minimal and probably not sufficient. The Libraries must decide whether quick delivery is important. It is either a high priority or it is not. If it is, we can provide a valuable service. If it is not, we can only make a partial attempt to supply necessary information in a timely fashion.

UnCover2 provides much, though not all, of what we need. Its speed, ease of operation, cost, and reliability do seem to be a good platform on which to build. The major drawback is fax delivery. A clear delivery format is essential for many, though

certainly not all, articles. If fax is acceptable to a patron, we could use it. A combination of fax, Ariel software(which has been examined also), and mail delivery seems desirable, probably with the patron participating more in decision-making than he has in the past. Other vendors, which fall within parameters which we decide are acceptable, should be utilized. Libraries should continue to be used wherever known performance meets our standards.

Conclusions

The examination of commercial suppliers did not provide a clear path for the UW Libraries to follow. Because UnCover2 is so closely tied to its member library collections and since reliable agreements are already in place between UW Libraries and the other CARL member libraries, it does not make sense to abandon our neighbors who provide comparatively quick traditional delivery for UnCover2's services. In addition, that group is pursuing the purchase of Ariel software which should provide the speed of fax transmissions with the clarity of a photocopy.

The study did serve to make us more aware of the options available for article delivery. Technology brings about such quick changes that we, along with libraries in general, must look beyond traditional means to satisfy our patrons' information needs. This pilot project has served to heighten our awareness that we must temper our tendencies toward providing material in the most inexpensive way possible, often at the cost of speed. Rather, we must seek a balance between the two, realizing that speed carries a higher price but satisfies legitimate patron needs.

DOCUMENT DELIVERY BY COMMERCIAL SUPPLIERS

TABLE 1
SUCCESS RATE
In Descending Order

Vendor Name	% Of Requests Filled	Number Of Requests Sent
Dynamic	100.0%	1
GeoRef	100.0%	6
SIRC	100.0%	2
UnCover2	95.2%	105
I-Med	91.7%	12
IOD	90.0%	10
Infostore	89.5%	19
Libraries	89.3%	140
Medical	88.9%	9
CAS	85.0%	20
All Vendors	**84.1%**	636
UMI	82.8%	163
ISI	73.8%	126
Data-search	55.6%	9
MITS	50.0%	10
EngSoc	25.0%	4

TABLE 2
AVERAGE DELIVERY TIME
In Increasing Number Of Days Overall

Vendor Name	Overall	Mail	Fax
UnCover2	1.8	n.a.	1.8
CAS	8.1	8.9	1.0
I-Med	8.5	9.1	2.0
MITS	8.8	8.8	n.a.
Libraries	9.3	9.9	4.1
UMI	9.3	9.9	5.9
All Vendors	**9.7**	**12.4**	**2.8**
ISI	10.3	11.6	2.5
GeoRef	16.3	16.3	n.a.
SIRC	18.0	18.0	n.a.
Dynamic	19.0	19.0	n.a.
EngSoc	19.0	19.0	n.a.
Medical	24.0	32.4	10.0
IOD	29.6	31.4	15.0
Infostore	30.8	30.8	n.a.
Data-search	36.0	36.0	n.a.

TABLE 3
AVERAGE COST
In Order By Increasing Average Cost

Vendor Name	Average Cost	Average Mail Cost	Average Fax Cost
EngSoc	$ 0.00	$ 0.00	$ 0.00
Libraries	$ 6.07	$ 5.81	$ 9.50
I-Med	$ 8.59	$ 8.50	$ 9.50
UnCover2	$ 9.56	n.a.	$ 9.56
All Vendors	**$ 9.87**	**$ 9.14**	**$11.52**
SIRC	$10.00	$10.00	n.a.
UMI	$10.00	$ 8.40	$16.99
MITS	$11.40	$11.40	n.a.
Dynamic	$12.50	$12.50	n.a.
ISI	$13.79	$12.75	$19.67
GeoRef	$14.46	$14.46	n.a.
Medical	$18.49	$16.68	$21.50
CAS	$18.88	$18.60	$21.00
Data-search	$19.09	$19.09	n.a.
Infostore	$25.53	$25.53	n.a.
IOD	$27.96	$25.19	$50.15

TABLE 4
VENDOR PROBLEMS
In Ascending Percentage Of Total

Vendor Name	Problems/Total Requests	Percentage Of Total
Dynamic	0/1	0%
EngSoc	0/4	0%
MITS	0/10	0%
SIRC	0/2	0%
UnCover2	0/105	0%
CAS	1/20	5%
ISI	17/126	6%
UMI	11/163	7%
I-Med	2/12	17%
All Vendors	**119/636**	**19%**
Libraries	31/140	22%
Data-search	4/9	44%
Medical	4/9	44%
Infostore	9/19	47%
GeoRef	3/6	50%
IOD	5/10	50%

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APPENDIX A

ALL VENDORS A-1

CHEMICAL ABSTRACTS SERVICE DOCUMENT DELIVERY SERVICE A-4

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APPENDIX A

ALL VENDORS

Summary

Total Number Of Requests Made
636.0
Total Number Of Requests Made During Phase 1
175.0
Total Number Of Requests Made During Phase 2
461.0
Number Of Articles Available From UnCover2 (Phase 2 Only)
139.0
Percentage Of Requests Available From UnCover2 (Phase 2 Only)
. 30.2

Success

Percentage Of Requests Successfully Filled
84.1
Number Of Requests Successfully Filled
535.0
Percentage Of Requests Unfilled/Retried
15.9
Number Of Req. Unfilled (Includes Final Cancellation 1/27/92)
101.0

Delivery Method

Number Of Articles Requested To Be Delivered By Fax
211.0
Number Of Articles Delivered By Fax
158.0
Number Of Articles Requested To Be Delivered By Mail
421.0
Number Of Articles Delivered By Mail
375.0

DOCUMENT DELIVERY BY COMMERCIAL SUPPLIERS: APPENDIX A

Number Of Articles Requested To Be Delivered By Federal Express
4.0
Number Of Requests Delivered By Federal Express
2.0

Delivery Time

Average Number Of Days From Request To Receipt
9.7
Average Number Of Days From Shipped To Receipt
5.0
Average Days To Receipt Of Fax
2.8
Average Days To Receipt Of Fax From Vendors
2.7
Average Days To Receipt Of Fax From Libraries
4.1
Average Days To Receipt By Mail
12.4
Average Days To Receipt By Mail From Vendors
13.5
Average Days To Receipt By Mail From Libraries
9.9
Average Days To Receipt By FedEx
3.0
Average Days To Receipt By FedEx From Vendors
3.0

Cost

Total Cost
$5,278.77
Average Cost For All Filled Requests
$9.87
Average Cost For Filled Requests, Only When Charged
$12.11
Number Of Free Articles
99.0
Average Cost For Fax Requests
$11.52

DOCUMENT DELIVERY BY COMMERCIAL SUPPLIERS: APPENDIX A

Average Cost For Fax Requests, Only When Charged
$12.38
Average Cost for Mail Requests
$9.14
Average Cost For Mail Requests, Only When Charged
$11.95
Average Cost For Federal Express Requests
$15.13

Problems

Copy Of Article Was Poor Or Incomplete
6.0
Requested Delivery By Fax, Received By Mail
34.0
Requested Delivery By Federal Express, Received By Mail
2.0
Requested Delivery By Mail, Received By Fax
3.0
Patron Was Not Satisfied With Fax, Article Was Re-ordered
4.0
Took An Extraordinarily Long Time (20 Days Or Longer) To Receive
46.0
Vendor Supplied Article Twice Or Did Not Update OCLC
15.0
Never Received A Response
10.0

Patron Type

Number Of Requests Made By Undergraduate Students
46.0
Percentage Of Requests Made By Undergraduate Students
10.0
Number Of Requests Made By Graduate Student
204.0
Percentage Of Requests Made By Graduate Students
44.3
Number Of Requests Made By Library Outreach
57.0

Percentage Of Requests Made By Library Outreach
12.4
Number Of Requests Made By Staff
7.0
Percentage Of Requests Made By Staff
1.5
Number Of Requests Made By Faculty
147.0
Percentage Of Requests Made By Faculty
31.9

CHEMICAL ABSTRACTS SERVICE DOCUMENT DELIVERY SERVICE (CAS)

Summary

Total Number Of Requests
20.0
Number Of Articles Available From UnCover2
1.0
Percentage Of Requests Available From UnCover2
5.0

Success

Percentage Of Requests Successfully Filled
85.0
Number Of Requests Successfully Filled
17.0
Percentage Of Requests Unfilled/Retried
15.0
Number Of Req. Unfilled (Includes Final Cancellation 1/27/92)
3.0

Delivery Method

Number Of Articles Requested To Be Delivered By Fax
4.0
Number Of Articles Delivered By Fax
1.0

Number Of Articles Requested To Be Delivered By Mail
14.0
Number Of Articles Delivered By Mail
15.0
Number Of Articles Requested To Be Delivered By Fed. Express
2.0
Number Of Requests Delivered By Federal Express
1.0

Delivery Time

Average Number Of Days From Request To Receipt
8.1
Average Number Of Days From Shipped To Receipt
5.9
Average Days To Receipt Of Fax
1.0
Average Days To Receipt By Mail
8.9
Average Days To Receipt By FedEx
4.0

Cost

Total Cost
$321.00
Average Cost For All Filled Requests
$18.88
Average Cost For Fax Requests
$21.00
Average Cost for Mail Requests
$18.60
Average Cost For Federal Express Requests
$21.00

Problems

Copy Of Article Was Poor Or Incomplete
0.0
Requested Delivery By Fax, Received By Mail
1.0

Requested Delivery By Federal Express, Received By Mail
1.0
Requested Delivery By Mail, Received By Fax
0.0
Took A Long Time (20+ Days) To Receive Article
0.0
Vendor Supplied Article Twice Or Did Not Update OCLC
0.0
Never Received A Response
0.0

Patron Type

Number Of Requests Made By Undergraduate Students
5.0
Percentage Of Requests Made By Undergraduate Students
25.0
Number Of Requests Made By Graduate Student
5.0
Percentage Of Requests Made By Graduate Students
25.0
Number Of Requests Made By Library Outreach
2.0
Percentage Of Requests Made By Library Outreach
10.0
Number Of Requests Made By Staff
0.0
Percentage Of Requests Made By Staff
0.0
Number Of Requests Made By Faculty
8.0
Percentage Of Requests Made By Faculty
40.0

DATA-SEARCH

Summary

Total Number Of Requests
9.0

Number Of Articles Available From UnCover2
0.0
Percentage Of Requests Available From UnCover2
0.0

Success

Percentage Of Requests Successfully Filled
55.6
Number Of Requests Successfully Filled
5.0
Percentage Of Requests Unfilled/Retried
44.4
Number Of Req. Unfilled (Includes Final Cancellation 1/27/92)
4.0

Delivery Method

Number Of Articles Requested To Be Delivered By Fax
4.0
Number Of Articles Delivered By Fax
0.0
Number Of Articles Requested To Be Delivered By Mail
5.0
Number Of Articles Delivered By Mail
5.0
Number Of Articles Requested To Be Delivered By Fed. Express
0.0
Number Of Requests Delivered By Federal Express
0.0

Delivery Time

Average Number Of Days From Request To Receipt
36.0
Average Number Of Days From Shipped To Receipt
5.3
Average Days To Receipt By Mail
36.0

Cost

Total Cost
$95.46
Average Cost For All Filled Requests
$19.09
Average Cost for Mail Requests
$19.09

Problems

Copy Of Article Was Poor Or Incomplete
0.0
Requested Delivery By Fax, Received By Mail
0.0
Requested Delivery By Federal Express, Received By Mail
0.0
Requested Delivery By Mail, Received By Fax
0.0
Took A Long Time (20+ Days) To Receive Article
4.0
Vendor Supplied Article Twice Or Did Not Update OCLC
0.0
Never Received A Response
0.0

Patron Type

Number Of Requests Made By Undergraduate Students
0.0
Percentage Of Requests Made By Undergraduate Students
0.0
Number Of Requests Made By Graduate Student
7.0
Percentage Of Requests Made By Graduate Students
77.8
Number Of Requests Made By Library Outreach
1.0
Percentage Of Requests Made By Library Outreach
11.1

Number Of Requests Made By Staff
0.0
Percentage Of Requests Made By Staff
0.0
Number Of Requests Made By Faculty
1.0
Percentage Of Requests Made By Faculty
11.1

DYNAMIC INFORMATION CORP. (DYNAMIC)

Summary

Total Number Of Requests
1.0
Number Of Articles Available From UnCover2
1.0
Percentage Of Requests Available From UnCover2
100.0

Success

Percentage Of Requests Successfully Filled
100.0
Number Of Requests Successfully Filled
1.0
Percentage Of Requests Unfilled/Retried
0.0
Number Of Req. Unfilled (Includes Final Cancellation 1/27/92)
0.0

Delivery Method

Number Of Articles Requested To Be Delivered By Fax
0.0
Number Of Articles Delivered By Fax
0.0
Number Of Articles Requested To Be Delivered By Mail
1.0

Number Of Articles Delivered By Mail
1.0
Number Of Articles Requested To Be Delivered By Fed. Express
0.0
Number Of Requests Delivered By Federal Express
0.0

Delivery Time

Average Number Of Days From Request To Receipt
19.0
Average Number Of Days From Shipped To Receipt
13.0
Average Days To Receipt By Mail
19.0

Cost

Total Cost
$12.50
Average Cost For All Filled Requests
$12.50
Average Cost for Mail Requests
$12.50

Problems

Copy Of Article Was Poor Or Incomplete
0.0
Requested Delivery By Fax, Received By Mail
0.0
Requested Delivery By Federal Express, Received By Mail
0.0
Requested Delivery By Mail, Received By Fax
0.0
Took A Long Time (20+ Days) To Receive Article
0.0
Vendor Supplied Article Twice Or Did Not Update OCLC
0.0
Never Received A Response
0.0

Patron Type

Number Of Requests Made By Undergraduate Students
0.0
Percentage Of Requests Made By Undergraduate Students
0.0
Number Of Requests Made By Graduate Student
0.0
Percentage Of Requests Made By Graduate Students
0.0
Number Of Requests Made By Library Outreach
1.0
Percentage Of Requests Made By Library Outreach
100.0
Number Of Requests Made By Staff
0.0
Percentage Of Requests Made By Staff
0.0
Number Of Requests Made By Faculty
0.0
Percentage Of Requests Made By Faculty
0.0

ENGINEERING SOCIETIES LIBRARY (ENGSOC)

Summary

Total Number Of Requests
4.0
Number Of Articles Available From UnCover2
2.0
Percentage Of Requests Available From UnCover2
50.0

Success

Percentage Of Requests Successfully Filled
25.0

Number Of Requests Successfully Filled
1.0
Percentage Of Requests Unfilled/Retried
75.0
Number Of Req. Unfilled (Includes Final Cancellation 1/27/92)
3.0

Delivery Method

Number Of Articles Requested To Be Delivered By Fax
1.0
Number Of Articles Delivered By Fax
0.0
Number Of Articles Requested To Be Delivered By Mail
3.0
Number Of Articles Delivered By Mail
1.0
Number Of Articles Requested To Be Delivered By Fed. Express
0.0
Number Of Requests Delivered By Federal Express
0.0

Delivery Time

Average Number Of Days From Request To Receipt
19.0
Average Number Of Days From Shipped To Receipt
7.0
Average Days To Receipt By Mail
19.0

Cost

Total Cost
$0.00
Average Cost For All Filled Requests
$0.00
Average Cost for Mail Requests
$0.00

Problems

Copy Of Article Was Poor Or Incomplete
0.0
Requested Delivery By Fax, Received By Mail
0.0
Requested Delivery By Federal Express, Received By Mail
0.0
Requested Delivery By Mail, Received By Fax
0.0
Took A Long Time (20+ Days) To Receive Article
0.0
Vendor Supplied Article Twice Or Did Not Update OCLC
0.0
Never Received A Response
0.0

Patron Type

Number Of Requests Made By Undergraduate Students
0.0
Percentage Of Requests Made By Undergraduate Students
0.0
Number Of Requests Made By Graduate Student
3.0
Percentage Of Requests Made By Graduate Students
75.0
Number Of Requests Made By Library Outreach
0.0
Percentage Of Requests Made By Library Outreach
0.0
Number Of Requests Made By Staff
0.0
Percentage Of Requests Made By Staff
0.0
Number Of Requests Made By Faculty
1.0
Percentage Of Requests Made By Faculty
25.0

GEOREF DOCUMENT DELIVERY SERVICE (GEOREF)

Summary

Total Number Of Requests
6.0
Number Of Articles Available From UnCover2
0.0
Percentage Of Requests Available From UnCover2
0.0

Success

Percentage Of Requests Successfully Filled
100.0
Number Of Requests Successfully Filled
6.0
Percentage Of Requests Unfilled/Retried
0.0
Number Of Req. Unfilled (Includes Final Cancellation 1/27/92)
0.0

Delivery Method

Number Of Articles Requested To Be Delivered By Fax
1.0
Number Of Articles Delivered By Fax
0.0
Number Of Articles Requested To Be Delivered By Mail
5.0
Number Of Articles Delivered By Mail
6.0
Number Of Articles Requested To Be Delivered By Fed. Express
0.0
Number Of Requests Delivered By Federal Express
0.0

Delivery Time

Average Number Of Days From Request To Receipt
16.3
Average Number Of Days From Shipped To Receipt
6.4
Average Days To Receipt By Mail
16.3

Cost

Total Cost
$86.75
Average Cost For All Filled Requests
$14.46
Average Cost for Mail Requests
$14.46

Problems

Copy Of Article Was Poor Or Incomplete
0.0
Requested Delivery By Fax, Received By Mail
1.0
Requested Delivery By Federal Express, Received By Mail
0.0
Requested Delivery By Mail, Received By Fax
0.0
Took A Long Time (20+ Days) To Receive Article
2.0
Vendor Supplied Article Twice Or Did Not Update OCLC
0.0
Never Received A Response
0.0

Patron Type

Number Of Requests Made By Undergraduate Students
0.0
Percentage Of Requests Made By Undergraduate Students
0.0
Number Of Requests Made By Graduate Student
3.0

Percentage Of Requests Made By Graduate Students
50.0
Number Of Requests Made By Library Outreach
0.0
Percentage Of Requests Made By Library Outreach
0.0
Number Of Requests Made By Staff
2.0
Percentage Of Requests Made By Staff
33.3
Number Of Requests Made By Faculty
1.0
Percentage Of Requests Made By Faculty
16.7

I-MED INFORMATION SERVICES (I-MED)

Summary

Total Number Of Requests
12.0
Number Of Articles Available From UnCover2
0.0
Percentage Of Requests Available From UnCover2
0.0

Success

Percentage Of Requests Successfully Filled
91.7
Number Of Requests Successfully Filled
11.0
Percentage Of Requests Unfilled/Retried
8.3
Number Of Req. Unfilled (Includes Final Cancellation 1/27/92)
1.0

Delivery Method

DOCUMENT DELIVERY BY COMMERCIAL SUPPLIERS: APPENDIX A

Number Of Articles Requested To Be Delivered By Fax
4.0
Number Of Articles Delivered By Fax
1.0
Number Of Articles Requested To Be Delivered By Mail
8.0
Number Of Articles Delivered By Mail
10.0
Number Of Articles Requested To Be Delivered By Fed. Express
0.0
Number Of Requests Delivered By Federal Express
0.0

Delivery Time

Average Number Of Days From Request To Receipt
8.5
Average Number Of Days From Shipped To Receipt
6.2
Average Days To Receipt Of Fax
2.0
Average Days To Receipt By Mail
9.1

Cost

Total Cost
$94.50
Average Cost For All Filled Requests
$8.59
Average Cost For Fax Requests
$9.50
Average Cost for Mail Requests
$8.50

Problems

Copy Of Article Was Poor Or Incomplete
0.0
Requested Delivery By Fax, Received By Mail
2.0

Requested Delivery By Federal Express, Received By Mail
0.0
Requested Delivery By Mail, Received By Fax
0.0
Took A Long Time (20+ Days) To Receive Article
0.0
Vendor Supplied Article Twice Or Did Not Update OCLC
0.0
Never Received A Response
0.0

Patron Type

Number Of Requests Made By Undergraduate Students
3.0
Percentage Of Requests Made By Undergraduate Students
25.0
Number Of Requests Made By Graduate Student
2.0
Percentage Of Requests Made By Graduate Students
16.7
Number Of Requests Made By Library Outreach
0.0
Percentage Of Requests Made By Library Outreach
0.0
Number Of Requests Made By Staff
0.0
Percentage Of Requests Made By Staff
0.0
Number Of Requests Made By Faculty
7.0
Percentage Of Requests Made By Faculty
58.3

INFORMATION ON DEMAND, INC. (IOD)

Summary

Total Number Of Requests
10.0

Number Of Articles Available From UnCover2
0.0
Percentage Of Requests Available From UnCover2
0.0

Success

Percentage Of Requests Successfully Filled
90.0
Number Of Requests Successfully Filled
9.0
Percentage Of Requests Unfilled/Retried
10.0
Number Of Req. Unfilled (Includes Final Cancellation 1/27/92)
1.0

Delivery Method

Number Of Articles Requested To Be Delivered By Fax
1.0
Number Of Articles Delivered By Fax
1.0
Number Of Articles Requested To Be Delivered By Mail
9.0
Number Of Articles Delivered By Mail
8.0
Number Of Articles Requested To Be Delivered By Fed. Express
0.0
Number Of Requests Delivered By Federal Express
0.0

Delivery Time

Average Number Of Days From Request To Receipt
29.6
Average Number Of Days From Shipped To Receipt
3.0
Average Days To Receipt Of Fax
15.0
Average Days To Receipt By Mail
31.4

Cost

Total Cost
$251.67
Average Cost For All Filled Requests
$27.96
Average Cost For Fax Requests
$50.15
Average Cost for Mail Requests
$25.19

Problems

Copy Of Article Was Poor Or Incomplete
0.0
Requested Delivery By Fax, Received By Mail
0.0
Requested Delivery By Federal Express, Received By Mail
0.0
Requested Delivery By Mail, Received By Fax
0.0
Took A Long Time (20+ Days) To Receive Article
5.0
Vendor Supplied Article Twice Or Did Not Update OCLC
0.0
Never Received A Response
0.0

Patron Type

Number Of Requests Made By Undergraduate Students
0.0
Percentage Of Requests Made By Undergraduate Students
0.0
Number Of Requests Made By Graduate Student
3.0
Percentage Of Requests Made By Graduate Students
30.0
Number Of Requests Made By Library Outreach
1.0

Percentage Of Requests Made By Library Outreach
10.0
Number Of Requests Made By Staff
1.0
Percentage Of Requests Made By Staff
10.0
Number Of Requests Made By Faculty
5.0
Percentage Of Requests Made By Faculty
50.0

INFORMATION STORE, INC. (INFOSTORE)

Summary

Total Number Of Requests
19.0
Number Of Articles Available From UnCover2
1.0
Percentage Of Requests Available From UnCover2
5.3

Success

Percentage Of Requests Successfully Filled
89.5
Number Of Requests Successfully Filled
17.0
Percentage Of Requests Unfilled/Retried
10.5
Number Of Req. Unfilled (Includes Final Cancellation 1/27/92)
2.0

Delivery Method

Number Of Articles Requested To Be Delivered By Fax
0.0
Number Of Articles Delivered By Fax
0.0

DOCUMENT DELIVERY BY COMMERCIAL SUPPLIERS: APPENDIX A

Number Of Articles Requested To Be Delivered By Mail
19.0
Number Of Articles Delivered By Mail
17.0
Number Of Articles Requested To Be Delivered By Fed. Express
0.0
Number Of Requests Delivered By Federal Express
0.0

Delivery Time

Average Number Of Days From Request To Receipt
30.8
Average Number Of Days From Shipped To Receipt
4.8
Average Days To Receipt By Mail
30.8

Cost

Total Cost
$434.00
Average Cost For All Filled Requests
$25.53
Average Cost for Mail Requests
$25.53

Problems

Copy Of Article Was Poor Or Incomplete
0.0
Requested Delivery By Fax, Received By Mail
0.0
Requested Delivery By Federal Express, Received By Mail
0.0
Requested Delivery By Mail, Received By Fax
0.0
Took A Long Time (20+ Days) To Receive Article
9.0
Vendor Supplied Article Twice Or Did Not Update OCLC
0.0

Never Received A Response
0.0

Patron Type

Number Of Requests Made By Undergraduate Students
0.0
Percentage Of Requests Made By Undergraduate Students
0.0
Number Of Requests Made By Graduate Student
7.0
Percentage Of Requests Made By Graduate Students
36.8
Number Of Requests Made By Library Outreach
4.0
Percentage Of Requests Made By Library Outreach
21.1
Number Of Requests Made By Staff
2.0
Percentage Of Requests Made By Staff
10.5
Number Of Requests Made By Faculty
6.0
Percentage Of Requests Made By Faculty
31.6

INSTITUTE FOR SCIENTIFIC INFORMATION'S GENUINE ARTICLE (ISI)

Summary

Total Number Of Requests
126.0
Total Number Of Requests Made During Phase 1
49.0
Total Number Of Requests Made During Phase 2
77.0
Number Of Articles Available From UnCover2 (Phase 2 Only)
8.0
Percentage Of Requests Available From UnCover2 (Phase 2 Only)
10.4

DOCUMENT DELIVERY BY COMMERCIAL SUPPLIERS: APPENDIX A

Success

Percentage Of Requests Successfully Filled
73.8
Number Of Requests Successfully Filled
93.0
Percentage Of Requests Unfilled/Retried
26.2
Number Of Req. Unfilled (Includes Final Cancellation 1/27/92)
33.0

Delivery Method

Number Of Articles Requested To Be Delivered By Fax
26.0
Number Of Articles Delivered By Fax
14.0
Number Of Articles Requested To Be Delivered By Mail
99.0
Number Of Articles Delivered By Mail
79.0
Number Of Articles Requested To Be Delivered By Fed. Express
1.0
Number Of Requests Delivered By Federal Express
0.0

Delivery Time

Average Number Of Days From Request To Receipt
10.3
Average Number Of Days From Shipped To Receipt
4.6
Average Days To Receipt Of Fax
2.5
Average Days To Receipt By Mail
11.6

Cost

Total Cost
$1,282.34
Average Cost For All Filled Requests
$13.79
Average Cost For Fax Requests
$19.67
Average Cost for Mail Requests
$12.75

Problems

Copy Of Article Was Poor Or Incomplete
0.0
Requested Delivery By Fax, Received By Mail
6.0
Requested Delivery By Federal Express, Received By Mail
1.0
Requested Delivery By Mail, Received By Fax
0.0
Took A Long Time (20+ Days) To Receive Article
10.0
Vendor Supplied Article Twice Or Did Not Update OCLC
0.0
Never Received A Response
0.0

Patron Type

Number Of Requests Made By Undergraduate Students
5.0
Percentage Of Requests Made By Undergraduate Students
6.5
Number Of Requests Made By Graduate Student
36.0
Percentage Of Requests Made By Graduate Students
46.8
Number Of Requests Made By Library Outreach
18.0

Percentage Of Requests Made By Library Outreach
23.4
Number Of Requests Made By Staff
0.0
Percentage Of Requests Made By Staff
0.0
Number Of Requests Made By Faculty
18.0
Percentage Of Requests Made By Faculty
23.4

LIBRARIES

Summary

Total Number Of Requests Made
140.0
Total Number Of Requests Made During Phase 1
73.0
Total Number Of Requests Made During Phase 2
67.0
Number Of Articles Available From UnCover2 (Phase 2 Only)
11.0
Percentage Of Requests Available From UnCover2 (Phase 2 Only)
17.2

Success

Percentage Of Requests Successfully Filled
89.3
Number Of Requests Successfully Filled
125.0
Percentage Of Requests Unfilled/Retried
10.7
Number Of Req. Unfilled (Includes Final Cancellation 1/27/92)
15.0

Delivery Method

DOCUMENT DELIVERY BY COMMERCIAL SUPPLIERS: APPENDIX A

Number Of Articles Requested To Be Delivered By Fax
26.0
Number Of Articles Delivered By Fax
13.0
Number Of Articles Requested To Be Delivered By Mail
114.0
Number Of Articles Delivered By Mail
112.0
Number Of Articles Requested To Be Delivered By Federal Express
0.0
Number Of Requests Delivered By Federal Express
0.0

Delivery Time

Average Number Of Days From Request To Receipt
9.3
Average Number Of Days From Shipped To Receipt
6.7
Average Days To Receipt Of Fax
4.1
Average Days To Receipt By Mail
9.9

Cost

Total Cost
$170.05
Average Cost For All Filled Requests
$1.36
Average Cost For Filled Requests, Only When Charged
$6.07
Average Cost For Fax Requests
$1.46
Average Cost For Fax Requests, Only When Charged
$9.50
Average Cost for Mail Requests
$1.35
Average Cost For Mail Requests, Only When Charged
$5.81

Problems

Copy Of Article Was Poor Or Incomplete
1.0
Requested Delivery By Fax, Received By Mail
16.0
Requested Delivery By Federal Express, Received By Mail
0.0
Requested Delivery By Mail, Received By Fax
3.0
Took A Long Time (20+ Days) To Receive Article
9.0
Vendor Supplied Article Twice Or Did Not Update OCLC
1.0
Never Received A Response
1.0

Patron Type

Number Of Requests Made By Undergraduate Students
6.0
Percentage Of Requests Made By Undergraduate Students
9.0
Number Of Requests Made By Graduate Student
32.0
Percentage Of Requests Made By Graduate Students
47.8
Number Of Requests Made By Library Outreach
3.0
Percentage Of Requests Made By Library Outreach
4.5
Number Of Requests Made By Staff
1.0
Percentage Of Requests Made By Staff
1.5
Number Of Requests Made By Faculty
25.0
Percentage Of Requests Made By Faculty
37.3

MEDICAL DATA EXCHANGE (MEDICAL)

Summary

Total Number Of Requests
9.0
Number Of Articles Available From UnCover2
1.0
Percentage Of Requests Available From UnCover2
11.1

Success

Percentage Of Requests Successfully Filled
88.9
Number Of Requests Successfully Filled
8.0
Percentage Of Requests Unfilled/Retried
11.1
Number Of Req. Unfilled (Includes Final Cancellation 1/27/92)
1.0

Delivery Method

Number Of Articles Requested To Be Delivered By Fax
4.0
Number Of Articles Delivered By Fax
3.0
Number Of Articles Requested To Be Delivered By Mail
5.0
Number Of Articles Delivered By Mail
5.0
Number Of Articles Requested To Be Delivered By Fed. Express
0.0
Number Of Requests Delivered By Federal Express
0.0

Delivery Time

Average Number Of Days From Request To Receipt
24.0
Average Number Of Days From Shipped To Receipt
7.0
Average Days To Receipt Of Fax
10.0
Average Days To Receipt By Mail
32.4

Cost

Total Cost
$147.90
Average Cost For All Filled Requests
$18.49
Average Cost For Fax Requests
$21.50
Average Cost for Mail Requests
$16.68

Problems

Copy Of Article Was Poor Or Incomplete
0.0
Requested Delivery By Fax, Received By Mail
1.0
Requested Delivery By Federal Express, Received By Mail
0.0
Requested Delivery By Mail, Received By Fax
0.0
Took A Long Time (20+ Days) To Receive Article
3.0
Vendor Supplied Article Twice Or Did Not Update OCLC
0.0
Never Received A Response
0.0

Patron Type

Number Of Requests Made By Undergraduate Students
0.0

Percentage Of Requests Made By Undergraduate Students
0.0
Number Of Requests Made By Graduate Student
4.0
Percentage Of Requests Made By Graduate Students
44.4
Number Of Requests Made By Library Outreach
0.0
Percentage Of Requests Made By Library Outreach
0.0
Number Of Requests Made By Staff
0.0
Percentage Of Requests Made By Staff
0.0
Number Of Requests Made By Faculty
5.0
Percentage Of Requests Made By Faculty
55.6

MICHIGAN INFORMATION TRANSFER SOURCE (MITS)

Summary

Total Number Of Requests
10.0
Number Of Articles Available From UnCover2
0.0
Percentage Of Requests Available From UnCover2
0.0

Success

Percentage Of Requests Successfully Filled
50.0
Number Of Requests Successfully Filled
5.0
Percentage Of Requests Unfilled/Retried
50.0
Number Of Req. Unfilled (Includes Final Cancellation 1/27/92)
5.0

Delivery Method

Number Of Articles Requested To Be Delivered By Fax
0.0
Number Of Articles Delivered By Fax
0.0
Number Of Articles Requested To Be Delivered By Mail
10.0
Number Of Articles Delivered By Mail
5.0
Number Of Articles Requested To Be Delivered By Fed. Express
0.0
Number Of Requests Delivered By Federal Express
0.0

Delivery Time

Average Number Of Days From Request To Receipt
8.8
Average Number Of Days From Shipped To Receipt
5.7
Average Days To Receipt By Mail
8.8

Cost

Total Cost
$57.00
Average Cost For All Filled Requests
$11.40
Average Cost for Mail Requests
$11.40

Problems

Copy Of Article Was Poor Or Incomplete
0.0
Requested Delivery By Fax, Received By Mail
0.0

Requested Delivery By Federal Express, Received By Mail
0.0
Requested Delivery By Mail, Received By Fax
0.0
Took A Long Time (20+ Days) To Receive Article
0.0
Vendor Supplied Article Twice Or Did Not Update OCLC
0.0
Never Received A Response
0.0

Patron Type

Number Of Requests Made By Undergraduate Students
1.0
Percentage Of Requests Made By Undergraduate Students
10.0
Number Of Requests Made By Graduate Student
4.0
Percentage Of Requests Made By Graduate Students
40.0
Number Of Requests Made By Library Outreach
1.0
Percentage Of Requests Made By Library Outreach
10.0
Number Of Requests Made By Staff
0.0
Percentage Of Requests Made By Staff
0.0
Number Of Requests Made By Faculty
4.0
Percentage Of Requests Made By Faculty
40.0

SPORT INFORMATION RESOURCE CENTRE (SIRC)

Summary

Total Number Of Requests Made
2.0

Number Of Articles Available From UnCover2
0.0
Percentage Of Requests Available From UnCover2 (Phase 2 Only)
0.0

Success

Percentage Of Requests Successfully Filled
100.0
Number Of Requests Successfully Filled
2.0
Percentage Of Requests Unfilled/Retried
0.0
Number Of Req. Unfilled (Includes Final Cancellation 1/27/92)
0.0

Delivery Method

Number Of Articles Requested To Be Delivered By Fax
0.0
Number Of Articles Delivered By Fax
0.0
Number Of Articles Requested To Be Delivered By Mail
2.0
Number Of Articles Delivered By Mail
2.0
Number Of Articles Requested To Be Delivered By Fed. Express
0.0
Number Of Requests Delivered By Federal Express
0.0

Speed Of Delivery

Average Number Of Days From Request To Receipt
18.0
Average Number Of Days From Shipped To Receipt
3.0
Average Days To Receipt By Mail
18.0

Cost

Total Cost
$20.00
Average Cost For All Filled Requests
$10.00
Average Cost for Mail Requests
$10.00

Problems

Copy Of Article Was Poor Or Incomplete
0.0
Requested Delivery By Fax, Received By Mail
0.0
Requested Delivery By Federal Express, Received By Mail
0.0
Requested Delivery By Mail, Received By Fax
0.0
Took A Long Time (20+ Days) To Receive Article
0.0
Vendor Supplied Article Twice Or Did Not Update OCLC
0.0
Never Received A Response
0.0

Patron Type

Number Of Requests Made By Undergraduate Students
0.0
Percentage Of Requests Made By Undergraduate Students
0.0
Number Of Requests Made By Graduate Student
2.0
Percentage Of Requests Made By Graduate Students
100.0
Number Of Requests Made By Library Outreach
0.0
Percentage Of Requests Made By Library Outreach
0.0

Number Of Requests Made By Staff
0.0
Percentage Of Requests Made By Staff
0.0
Number Of Requests Made By Faculty
0.0
Percentage Of Requests Made By Faculty
0.0

UNCOVER2

Summary

Total Number Of Requests
105.0

Success

Percentage Of Requests Successfully Filled
95.2
Number Of Requests Successfully Filled
100.0
Percentage Of Requests Unfilled/Retried
4.8
Number Of Req. Unfilled (Includes Final Cancellation 1/27/92)
5.0

Delivery Method

Number Of Articles Requested To Be Delivered By Fax
105.0
Number Of Articles Delivered By Fax
100.0
Number Of Articles Requested To Be Delivered By Mail
0.0
Number Of Articles Delivered By Mail
0.0
Number Of Articles Requested To Be Delivered By Fed. Express
0.0

Number Of Requests Delivered By Federal Express
0.0

Delivery Time

Average Number Of Days From Request To Receipt
1.8
Average Days To Receipt Of Fax
1.8

Cost

Total Cost
$955.90
Average Cost For All Filled Requests
$9.56
Average Cost For Fax Requests
$9.56

Problems

Copy Of Article Was Poor Or Incomplete
0.0
Requested Delivery By Fax, Received By Mail
0.0
Requested Delivery By Federal Express, Received By Mail
0.0
Requested Delivery By Mail, Received By Fax
0.0
Took A Long Time (20+ Days) To Receive Article
0.0
Vendor Supplied Article Twice Or Did Not Update OCLC
0.0
Never Received A Response
0.0

Patron Type

Number Of Requests Made By Undergraduate Students
10.0

Percentage Of Requests Made By Undergraduate Students
9.5
Number Of Requests Made By Graduate Student
40.0
Percentage Of Requests Made By Graduate Students
38.1
Number Of Requests Made By Library Outreach
14.0
Percentage Of Requests Made By Library Outreach
13.3
Number Of Requests Made By Staff
1.0
Percentage Of Requests Made By Staff
1.0
Number Of Requests Made By Faculty
40.0
Percentage Of Requests Made By Faculty
38.1

UNIVERSITY MICROFILMS INTERNATIONAL ARTICLE CLEARINGHOUSE (UMI)

Summary

Total Number Of Requests
163.0
Total Number Of Requests Made During Phase 1
53.0
Total Number Of Requests Made During Phase 2
110.0
Number Of Articles Available From UnCover2 (Phase 2 Only)
9.0
Percentage Of Requests Available From UnCover2 (Phase 2 Only)
8.2

Success

Percentage Of Requests Successfully Filled
82.8
Number Of Requests Successfully Filled
135.0

Percentage Of Requests Unfilled/Retried
17.2
Number Of Req. Unfilled (Includes Final Cancellation 1/27/92)
28.0

Delivery Method

Number Of Articles Requested To Be Delivered By Fax
35.0
Number Of Articles Delivered By Fax
25.0
Number Of Articles Requested To Be Delivered By Mail
127.0
Number Of Articles Delivered By Mail
109.0
Number Of Articles Requested To Be Delivered By Fed. Express
1.0
Number Of Requests Delivered By Federal Express
1.0

Delivery Time

Average Number Of Days From Request To Receipt
9.3
Average Number Of Days From Shipped To Receipt
4.8
Average Days To Receipt Of Fax
5.9
Average Days To Receipt By Mail
9.9
Average Days To Receipt By FedEx
2.0

Cost

Total Cost
$1,349.70
Average Cost For All Filled Requests
$10.00
Average Cost For Fax Requests
$16.99

Average Cost for Mail Requests
$8.40
Average Cost For Federal Express Requests
$9.25

Problems

Copy Of Article Was Poor Or Incomplete
0.0
Requested Delivery By Fax, Received By Mail
7.0
Requested Delivery By Federal Express, Received By Mail
0.0
Requested Delivery By Mail, Received By Fax
0.0
Took A Long Time (20+ Days) To Receive Article
4.0
Vendor Supplied Article Twice Or Did Not Update OCLC
0.0
Never Received A Response
0.0

Patron Type

Number Of Requests Made By Undergraduate Students
16.0
Percentage Of Requests Made By Undergraduate Students
14.5
Number Of Requests Made By Graduate Student
56.0
Percentage Of Requests Made By Graduate Students
50.9
Number Of Requests Made By Library Outreach
12.0
Percentage Of Requests Made By Library Outreach
10.9
Number Of Requests Made By Staff
0.0
Percentage Of Requests Made By Staff
0.0

DOCUMENT DELIVERY BY COMMERCIAL SUPPLIERS: APPENDIX A

Number Of Requests Made By Faculty
26.0
Percentage Of Requests Made By Faculty
23.6